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A

SUMMARY

OF THE

PNEUMATO-CHEMICAL THEORY,

WITH A

TABLE

OF ITS

NOMENCLATURE,

INTENDED AS A

SUPPLEMENT to the ANALYSIS

OF THE

New London Pharmacopœia.

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The new theory and the language of the new nomenclature being at this time generally adopted, the following pages are principally intended, as a Supplement to the Analyſis of the New London Pharmacopœia.

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To the READER.

THE moſt able chemiſts having for a length of time admitted *Phlogiſton* to be a principle in the compoſition of certain bodies, and the cauſe of particular modifications of matter, it required more than ordinary minds to doubt its exiſtence; but ſince it has been diſcovered, that water is a compound body, and that the calx of a combuſtible body becomes heavier than that body was originally, another principle has been introduced, called *Oxygen*; which more ſatisfactorily accounts for this, and many other extraordinary phenomena. The evidence againſt water being an element or ſimple body, and the neceſſity of accounting for the increaſe of weight in calcined bodies, were the occaſion of much perplexity to the ſupporters of the phlogiſtic ſyſtem; and the mode of ſolving the latter particular carried with it too great an air of ſophiſtry to ſtand its ground. One of its moſt able defenders did advance, that phlogiſton not only has no weight, but that it poſſeſſes poſitive levity; and that when taken from an abſolutely heavy body, the body, by being deprived of this levity, becomes more heavy. Such a ſophiſm, together with the further aſſertions, that it renders air elaſtic, and conſtitutes flame by a chemical combination with air, &c. &c. does not allow of demonſtration; and, inſtead of ſupporting the cauſe of phlogiſton, has undoubtedly injured it; ſince no one circumſtance is apt to ſink the credit of an hypotheſis more, than an attempt to ſupport it by an inefficient proof.

The diſcoveries and experiments made by Dr. BLACK, Mr. CAVENDISH, and Dr. PRIESTLY, reſpecting the properties of elaſtic fluids, were the more immediate cauſes of the late improvements in Chemiſtry; and the two great diſcoveries of Mr. CAVENDISH, namely, the formation of water, by the combuſtion of inflammable gas and pure air; and of nitrous acid, by the application of electric ſparks, to a mixture of pure and impure airs, have helped to enforce the pneumatic ſyſtem.

On a tranſient view indeed, an attempt to explain the phenomena of fire, heat, and ignition, without the aid of phlogiſton, appears to be fraught with abſurdity; but when we conſider the talents and character of the perſons who have ventured upon this arduous taſk, the regularity of the ſyſtem they have adopted, together with the variety and accuracy of the facts and experiments produced as teſts of an agency, at leaſt adequate to the former principle, the difficulty of reconcilement may not prove ſo great as it is conceived to be.

It has been advanced that phlogiſtion was never ſeparately exhibited: it is the ſame with oxygen; on which account the latter principle is not yet poſitively eſtabliſhed: for it is too well known, that the baſis of human ſyſtem is moſtly ſpeculative, and conſequently ſubject to error, and to change.

With regard to the theory of acidification, we are told by M. Fourcroy, that it is a fact proved by the moſt ſtrict experiments, that ſulphur cannot convert itſelf into ſulphuric or vitriolic acid, unleſs once and a half of its weight of oxygen, or the baſe of vitriolic air, be combined with it; that in like manner, phoſphorus cannot become phoſphoric acid, nor charcoal carbonic acid or fixed air, unleſs combined with two parts and a half of oxygen, &c. So far the new doctrine of acidification is a recital of facts; but when from theſe particular facts, it is generally concluded, that oxygen is the conſtituent part of all acids, analogy leads us to think ſo, and then begins theory. Experiments therefore, accurately and repeatedly performed, are moſt likely to be the verification of it.

Profeſſor Gadolin has obſerved, that as the nature of the baſis of pure air, and the mode by which it combines itſelf with bodies have not been inveſtigated, there is no abſolute proof of its being brought about by the principle of acidity; it is alſo uncertain, whether it gives acidity, or by its combination, ſets at liberty bodies poſſeſſed of the properties of acids.

The Academy of Sciences at Paris, in their comparative remarks on the two principles, have long ſince acknowledged, that the new theory poſſeſſed advantages ſuperior to thoſe of the old; becauſe it agrees better with the mutual action of the principles of different bodies;

and in conſequence of the preciſion and exact calculation to which the perfection of modern apparatus has reduced the method of analyſing. Another powerful evidence in favour of the new theory is the conſentient judgment and practice of ſeveral men of eminence, who had ſtrenuouſly ſupported the phlogiſtic ſyſtem.

A
SUMMARY
OF THE
PNEUMATO-CHEMICAL THEORY,
AND OF THE
NOMENCLATURE.

THIS Theory and Nomenclature were regularly digeſted, and firſt made public, under the direction of Meſſ. MORVEAU, LAVOISIER, FOURCROY, and BERTHOLET, in the year 1787, by which the principles, names and order of things were entirely changed.

The elementary bodies or ſubſtances are divided into five claſſes, after the following method:

CLASS I.

This claſs comprehends thoſe ſimple ſubſtances or principles which approach neareſt to the idea of elements, are the firſt principles in combination, and have hitherto reſiſted analyſis. Theſe are

Lumiere	*Light*	Azote	*Azot*
Calorique	*Caloric*	Hydrogene	*Hydrogen*
Oxygene	*Oxygen*		

Light. Heat and light are the principal inſtruments of nature towards the various productions and changes of bodies. Light ſeems to be ſubject, like other bodies, to the laws of affinity, but is too ſubtle to be inveſtigated.

Caloric or *Matter of Heat*, is called in the new ſyſtem *calorique*, to diſtinguiſh it from *chaleur* heat, the latter denomination being intended to expreſs the effect of the former. Dr. Black ſays, that heat when combined in a certain degree with other matter loſes its ſenſible qualities, and remains inactive: heat in this ſtate of quietude, he calls *latent heat*, which is copiouſly contained in atmoſpheric air, and gives to it the elaſtic power; and ſubſtances are in a ſolid, liquid, or aeriform ſtate, in proportion to the quantity of caloric with which they combine.

Light and caloric appear in many inſtances to be productive of the ſame effects: combined with oxygen, hydrogen, azot, and ammoniac, they aſſiſt in changing ſubſtances not decompounded into the ſtate of gas, and thus produce vital air, inflammable air, phlogiſticated air, and alkaline gas.

Oxygen, the acidifying principle, or baſis of pure or vital air, called alſo heretofore dephlogiſticated air. The word is derived from οξυς acid, and γεινομαι to beget, having the ſuppoſed property of changing various ſubſtances, and producing acids. It is abſolutely neceſſary to reſpiration and combuſtion, and by being combined with different ſubſtances, called *acidifiable baſes*, is ſaid to form the different acids: it alſo unites with metals in their calcination, &c. and is conſidered as the cauſe of additional weight to ſubſtances in that ſtate. United with a quantity of oxygen not ſufficient to convert them into acids, it forms metallic ſubſtances, or earths, into what were formerly named calces, now called oxyds.

Pure air	143	parts with	100 of ſulphur give	ſulphuric acid
—	3	—	1 of impure air	nitric acid
—	72	—	28 of charcoal	carbonic acid
—	154	—	100 of phoſphorus	phoſphoric acid

With unknown baſes it is ſaid to form muriatic, boracic, ſuccinic, and fluoric or ſpathic acids.

With a baſis compounded of *hydrogen*, *charcoal*, and ſometimes a ſmall portion of *phoſphorus*—different vegetable acids.

With a baſis compounded of *hydrogen*, *charcoal*, *phoſphorus*, and *azot*—different animal acids.

With the metallic ſubſtances, *arſenic*, *molybden*, and *tungſtein*—their reſpective acids.

With *iron*, a doubtful acid, called pruſſian acid.

Hydrogen, Inflammable air, or gas. The word is derived from υδωρ water and γεινομαι to beget, water having been proved by experiments to be oxygenated hydrogen, or the immediate production of the combuſtion of oxygen gas with the hydrogen gas, deprived of light and caloric during the combuſtion.

Hydrogen is an aeriform fluid, when procured from iron or zinc, it is eleven or twelve times lighter than atmoſpheric air. If from putrid, animal, or vegetable ſubſtances, it is much heavier. It is generally mixed with a portion of the ſubſtance from which it has been ſeparated; has a noxious ſuffocating quality, and is a conſtituent part of vegetable and animal ſubſtances.

With *charcoal*, and not in the ſtate of gas, it is ſaid to conſtitute *oil*; which is more or leſs fixed in proportion to the quantity of hydrogen or charcoal it contains.

Iron and *Zinc* contain a large quantity of this air. When gas, it diſſolves *charcoal*, *phoſphorus*, and ſeveral *metals*; alſo *ſulphur*, in union with which, it forms *hepatic gas*.

Water is declared to be compounded of fifteen parts of hydrogen, and eighty-five of pure air; the proportions of which are ſaid to have been repeatedly proved by experiments.

Azot, or *Impure air*, called alſo *mephitic* and *phlogiſticated* air, is one of the eſſential principles of animal matter: the name is derived from α privat. and ζωη life; this air having a ſuffocating quality.

With *caloric*, or the matter of heat of the atmoſphere, it becomes gas.

With one part of azot, and three of oxygen or pure air, the nitrous acid is formed.

According to Monſ. BERTHOLET's experiments, ammoniac, or volatile alkali, is compoſed of 807 parts of azot and 193 of hydrogen.

In the proportion of 73 parts to 27 of pure air, atmoſpheric air is formed.

Some chemiſts declare azot to be a ſubſtance compounded of oxygen and hydrogen, others of pure air and phlogiſton.

CLASS. II.

The ſubſtances of this claſs are called *acidifiable baſes* or *Radicals*, being the radical principle of the acids; which united with oxygen or the *acidifying principle*, are ſaid to conſtitute acids.

The known acidifiable baſes or radicals of the acid are *azotic* or baſes of nitrous acid, called *nitric radical*, the *carbonic*, from the french word *carbon* charcoal, the *ſulphuric* and the *phoſphoric*. Thoſe which have not yet been ſeparated from the oxygen are much more numerous; ſuch are the *muriatic radical*, the *boracic*, *fluoric*, *&c.* It it is not unlikely that theſe acids, altho' ſaid to be ſimple bodies, have compound baſes, and that they differ merely from the different proportion of the ſame principles.

The acidifiable baſes or radicals are arranged in the tables after the following order: Sulphuric, phoſphoric, muriatic, boracic, fluoric, ſuccinic, acetic. tartaric, pyro-tartaric, oxalic, gallic, citric, malic, benzoic, pyro-lignic, pyro-mucic, camphoric, lactic, ſaccho-lactic, formic, pruſſic, ſebacic, lithic, bombic.

Theſe radicals manifeſt different qualities, according to the different quantities of oxygen with which they are ſaturated. Neutral ſalts alſo differ from the ſame cauſe, and the ſeveral ſtates of thoſe acids are expreſſed by as many different terminations, adapted to the ſame original word: thus for inſtance,

Sulphur completely oxygenated or ſaturated with oxygen, is called *acidum ſulphuricum*, ſulphuric acid, formerly vitriolic acid.

Salts prepared with this acid are called ſulphates ſulph*ats* ex. gr. ſulph*as* potaſſæ, or of vegetable alkali, formerly called tartarum vitriolatum, &c.

Sulphur united to a leſs quantity of oxygen, before called volatile vitriolic acid, is ſtiled acidum ſulphur*oſum*, or ſulphur*eous* acid.

The ſalt formed from the ſulphureous acid is named ſulph*is* or ſulph*ite*; ex. ſulph*is* potaſſæ, Stahls ſulphur*eous* ſalt.

The combination of ſulphur not advanced to the ſtate of an acid, is denominated ſulphu*retum* or ſulphu*ret*; ex. ſulphu*retum* potaſſæ, alkaline ſulphur*et*, or alkaline liver of ſulphur; ſulphu*retum* olei fixi formerly balſam of ſulphur, &c. &c.

Agreeable to this analogy are the words acet*ic*, and ace*teous* acid, acet*at*, and acet*ite* ſalt, nitr*ic*, nitr*at*, nitr*ous*, and nitr*ite*, carbon*ic*, carbon*at*, &c. &c.

The acids, obtained by diſtillation from tartar, ſugar, wood, &c. called empyreumatic ſpirits, are expreſſed by the diſſyllable *pyro*, from the greek word πυρ fire. Thus the ſpirit of tartar becomes *pyro-tartareous acid*, the ſalt *pyro-tartrite*; ſpirit of wood, *pyro-ligneous acid*, and the ſalt *pyro-lignite*, &c.

Beſides the radical acid already mentioned, many other acids are capable of uniting with the ſame baſis in different proportions; ſome of them retaining ſeveral baſes at the ſame time, viz. Salts with exceſs of acid, with exceſs of baſe, and ſur-compound ſalts; to the firſt is affixed the additional epithet *acidulous*, to the ſecond *ſur-ſaturated*, and the laſt has both the baſes ſpecified, ex.

Cream of tartar is called,	*Acidulous tartrite of potaſh.*
Common borax	*Borat ſur-ſaturated* with *ſoda*, or ſimply *borax.*
Salt of ſorrel, containing copper	*Cuprious oxalat* of *potaſh.*

CLASS III.

This diviſion comprehends all the known *metallic bodies* which are ranked as ſimple ſubſtances, and bear the title of acidifiable baſes. Three only are yet poſitively known to poſſeſs the property of producing acids, namely, arſenic, molybden, tungſten. The other 14, viz. manganeſe, nickel, cobalt, biſmuth, antimony, zinc, iron, tin, lead, copper, mercury, ſilver, platina, gold, are ſuſceptible of that intermediate ſtate of ſaturation with oxygen, which is expreſſed by the particular name of *oxydum*, *oxide*, or *oxyd*; a word intended to denote a body impregnated with a certain quantity of oxygen, but not ſufficient to form an acid, formerly called calx. The following oxyds may ſerve as examples:

Oxydum zinci ſublimatum — Flowers of zinc.
——— plumbi ſemi-vitreum — Litharge.

Salts formed by metallic acids are diſtinguiſhed in like manner with acids in general, by the terminations *as* and *at*; as arſeni*as*, arſeni*at*; molybd*as*, molybd*at*; and tungſt*as*, tungſt*at*, obſerving alſo to expreſs the baſe.

No metallic ſubſtance is ſoluble in an acid till it becomes an *oxyd* or calx, by being united with *oxygen*, either from the decompoſition of the acid, or of the water employed in the ſolution.

Metallic calces or oxyds, are abſolutely heavier than the metals of which they are formed, and hence are evidently united with ſome new ſubſtance; but they are ſpecifically lighter than before calcination. They loſe no particular ſubſtance, but abſorb, and unite with, the oxygenous principle deprived of moſt part of its ſpecific heat, which the air contained, and which was the cauſe of the air having an aeriform exiſtence.

The immediate combinations of metals with other metals, in their moſt ſimple ſtate, without either of them being oxygenated or oxydated, are expreſſed by the word *alloy*; thus, the metals of printers' types are called *alloy* of *antimony* and *lead*; braſs, *alloy* of *copper* and *zinc*.

The term *amalgam* is expreſſive of the alloys of mercury: thus the compoſition laid on looking-glaſſes is called, *amalgam* of *tin*.

CLASS IV.

Contains the five earths, which altho' they have certain properties in common, bear diſtinct marks that require different denominations.

Silice, or *Silica*—Siliceous, or vitrifiable earth, ſuch as quartz, flint, &c.
Alumina, the baſis of alum, or pure argillaceous earth.
Baryta, ponderous earth, or barytes.
Calx, calcareous earth in the ſtate of lime.
Magneſia, of the ſhops.

The laſt four are ſoluble in acids, and are placed in the claſs of acidifiable baſes. Chymiſts have not yet been able to decompoſe any of theſe earths; they are therefore ranked as ſimple bodies.

CLASS. V.

This claſs contains the three alkalies, all of which are ſuppoſed to be compounds, and are accordingly omitted in the liſt of ſimple bodies.

The vegetable alkali is named *potaſſa*, the foſſil alkali, *ſoda*, and the volatile alkali, *ammoniaca*; which laſt has been proved, by the repeated experiments of Monſ. BERTHOLET and Dr. AUSTIN, to be a combination of *azot* and *hydrogen*.

The *Appendix* to the *New Nomenclature* contains ſome compound ſubſtances, which ſometimes combine like ſimple bodies.

In the experiments made upon animal and vegetable ſubſtances, ſimilar principles are frequently found both in the claſſes and different ſpecies, which may be conſidered as the chemical compoſitions of nature, ſuch are *ſugar*, *mucus*, *gluten*, *ſtarch*, *reſin*, *extract*, *fecula*, and the *oils*.

Sugar, *gums* and *ſtarch* are ranked by M. LAVOISIER in the claſs of oxyds; they become oxyds by a baſis being formed from an union of the inflammable air and charcoal, and a combination with pure air. An additional quantity of pure air brings them into a ſtate of acids.

Balſams and *reſins* contain nearly the ſame principles that volatile or eſſential *oils* do; they attain ſolidity by abſorbing pure air, whilſt they part with inflammable air.

Fecula is the farinaceous matter of vegetables, which ſerves for nouriſhment to the organic parts, and lodges in their trunks, branches, leaves, ſeeds and roots.

Oils are compounded of charcoal and inflammable air, not reduced into gas by means of calorique. There are two ſorts of oils, the *fixed* or unctuous containing an exceſs of charcoal, and the *eſſential* or *volatile*, containing a greater proportion of inflammable air, which riſes in form of gas with the watery vapour, by diſtillation, and re-unites in the form of oils. When burnt in pure air, they are converted into water and aerial acid.

The Nomenclature gives the title of ſapo, ſoap, to the compoſitions of fixed oils; as *ſapo potaſſæ* alkaline or common ſoap; and thoſe compoſed of volatile or eſſential oils are diſtinguiſhed by the word *ſaponulus ſaponul*, as ſaponulus potaſſæ, Starkey's ſoap.

The ſubſtance called rector ſpirit, being eſſentially the principle of odour in plants and flowers, is named *aroma*, and is not inveſtigable.

The word *alcohol* is adopted for ſpirit of wine, and tinctures, &c. formed of that menſtruum; ſuch are, the dulcified ſpirit of ſalt, now called *muriatic alcohol.* Tincture of guaiacum, *alcohol* of *guaiacum*, &c.

Such combinations of alcohol and acids as form ether, are called agreeable to the acid employed; viz. *Sulphuric ether*, *acetic ether*, and *nitric ether*.

Lavoisier ſays, that all vegetable ſubſtances contain three principles, pure air, inflammable air, and charcoal; that ſome of the alkaleſcent plants contain alſo impure air and phoſphorus; alſo, that animal ſubſtances contain pure, impure, and inflammable airs, charcoal, and phoſphorus; but afford more oil and volatile alkali, when diſtilled, than the alkaleſcent plants, conſequently poſſeſs more impure and inflammable air.

COMBUSTION AND OXYDATION.

M. Lavoisier who was one of the inventors of the New Syſtem, and a principle ſupporter of it by the accuracy and ingenuity of his experiments, declares that combuſtion is the decompoſition of oxygenous gas, effected by a combuſtible body: towards which proceſs, the oxygen that formed the baſis of the gas, having greater affinity with the combuſtible body than with light or caloric, is abſorbed by it, whilſt the two latter ſubſtances are diſengaged and ſet free, and form what is called flame; that no combuſtion can be effected without the application of additional heat to break the equilibrium or reſt of the conſtituent parts; and that the combuſtion may be kept up, until the combuſtible body is quite ſaturated with the oxygenous principle.

When the combuſtion is in pure air, the whole of it is abſorbed; in atmoſpheric air, about one fourth, that being the quantity it moſtly contains.

The phlogiſtic ſyſtem ſuppoſed metals to be ſubſtances compoſed of an earthy matter, and phlogiſton or inflammable matter; which latter being diſſipated by the force of fire, left a calx; and that by the addition of charcoal, or any kind of phlogiſtic ſubſtance, this calx was reducible to its priſtine metallic ſtate.

The new doctrine ſays, that metals are ſimple bodies; but that in the ſtate of oxyds, as in their ores, they are combined with oxygen. That in the operation of reduction, the oxygen unites with the charcoal, to which it has a greater affinity than to moſt metals, forms a carbonic acid, and ſets free the metal.

After the diſcovery of calces being heavier than the metal before calcination, and of the component principles of water, it was ſuggeſted by Mr. CAVENDISH, that the phlogiſton is carried off, and water is taken up in its ſtead: alſo, that the reduction of a calcined metal is effected by the inflammable principle of the water uniting to the metal, and the pure air, the other conſtituent part of the water, being ſet looſe.

Mr. KIRWAN ſuppoſed, that metals when calcined loſe their phlogiſton, which he ſays is inflammable air in a concrete ſtate, and that at the ſame time they moſtly unite to fixed air formed during the operation; but ſometimes they unite to water, and other ſubſtances, by whoſe means they are calcined. The reduction of the calces of perfect metals, he ſays, may be effected by decompoſing their fixed air; thoſe of the imperfect and ſemi-metal, partly by the decompoſition of their fixed air, and partly by its expulſion with that of the other bodies which they had abſorbed, and their ſimultaneous reunion to the inflammable principle.

The authors of the new ſyſtem ſay on the contrary, that oxygen produces the ſame appearances in the calcination of all metals.

Oxydation, called in the phlogiſtic ſyſtem *Calcination*, of metallic ſubſtances, is in every poſſible caſe, whether by air, water, acids, &c. a combination with the baſes of pure air (oxygen) which is abſorbed in different degrees by different ſubſtances.

They are oxydated in proportion to the quantity of vital air, which the atmoſpheric air, attending them, contained.

The oxygen is abſorbed and fixed in proportion to the force of combuſtion; which, when rapid, is accompanied with heat and light.

When metals are diſſolved in acids, the water contained therein is decompoſed; the pure air of the water unites with the metal, and forms a calx or oxyd, and its inflammable air is diſengaged.

Metals increaſe in weight according to the quantity of oxygen they abſorb and fix, during combuſtion; which is in proportion to the decreaſe of weight in the ſurrounding air.

Metallic oxyds are decompoſed or reduced into metals, by the laws of attraction purſued by oxygen. Heat ſeparates it from ſome, one metal takes it from another, hydrogen or inflammable air takes it from moſt metals, and carbon or charcoal, perhaps from all.

Metallic ſubſtances have different degrees of chemical attraction to oxygen. M. LAVOISIER has exhibited a part of them in the following ſucceſſion: manganeſe, zinc, iron, copper, mercury, ſilver, gold.

For further information on theſe ſubjects, vide ST. JOHN's Chemical Nomenclature, FOURCROY's Elements of Chemiſtry, LAVOISIER's Traitè Elementaire de Chemie, KIRWAN's Eſſay on Phlogiſton, with Notes, &c.

P. S. There is no doubt but the inveſtigation of factitious airs has produced additional ſtrength to the medical art; and we have a promiſing appearance of ſucceſs, from the effects of thoſe fluids when regularly modified, in diſeaſes which have hitherto baffled the powers of medicine. The MEDICAL PNEUMATIC INSTITUTION, liberally brought forward under the patronage of ſeveral perſons of note both in and out of the profeſſion, by the ingenious Dr. BEDDOES, late Chemical Profeſſor at Oxford, is the moſt likely means of aſcertaining the mode of applying thoſe airs, and of obtaining a real ſtatement of facts.

AN ACCOUNT OF THE

NEW NOMENCLATURE,

EXTRACTED FROM THE

REGISTERS of the ROYAL ACADEMY of SCIENCES, at PARIS;

And publiſhed by Dr. ST. JOHN, in his Method of CHEMICAL NOMENCLATURE.

THE Table of the New Chemical Nomenclature, which has been preſented to us by Meſſ. de Morveau, Lavoisier, Bertholet, and de Fourcroy, is divided into ſix columns.

FIRST COLUMN.

SUBSTANCES NOT DECOMPOUNDED.

The firſt column contains the ſubſtances which appear to be moſt ſimple, or to approach neareſt to the ſtate of ſimplicity; ſuch are *light*, *matter* of *heat* or caloric, *vital air* or oxygen, inflammable air or hydrogen, *phlogiſticated air* or azot.

Next are placed the acidifiable baſes or radicals of the acids; that is to ſay, the ſubſtances, which although not acid in themſelves, nevertheleſs produce the different acids, by their ſimple combuſtion with oxygen, or dephlogiſticated gas deprived of its caloric or matter of heat. At the head of this claſs they have placed ſulphur, which they regard as an elementary ſubſtance, or at leaſt as a ſubſtance not decompoſed, and as the baſe of the vitriolic acid. Next follow the leſs known baſes of the muriatic, boracic, ſuccinic, and acetic acids; in a word, the baſes of all the acids ſucceſſively taken from the mineral, vegetable, and animal kingdoms. Theſe baſes are expreſſed in the table by the name of *radical*: thus they ſay ſulphuric radical, muriatic radical, acetic radical, &c.

In this claſs the moſt known baſes of the acids are diſtinguiſhed from thoſe which we have not as yet been able to decompoſe, or whoſe principles we cannot obtain ſeparately; ſuch are azot, carbon, ſulphur, and phoſphorus.

In this firſt column likewiſe are placed the ſemi-metals and the metals, as ſimple ſubſtances; the five earths expreſſed by the words, *ſilice*, *alumine*, *barytes*, *lime*, and *magneſia*; alſo, the three alkalies, *potaſh*, *ſoda*, and *ammoniac* or volatile alkali.

SECOND COLUMN.

The Subſtances of the FIRST COLUMN, changed into the STATE of GAS by CALORIC.

Light or caloric combined with oxygen, with hydrogen, with azot, and with ammoniac, aſſiſt in changing them into the ſtate of gas, and thus produce *vital air*, *inflammable air*, and *phlogiſticated air*, or *alkaline gas*. Theſe are the claſs of combinations denominated in the ſecond column.

THIRD COLUMN.

The preceding Subſtances, united to OXYGEN, and thereby producing ACIDS.

The different ſubſtances contained in the firſt column, combined with oxygen, produce all the acids; to which in this ſtate a general name is given, the termination of which is always the ſame; thus it is ſaid ſulphu*ric* acid, to diſtinguiſh it from ſulphu*reous* acid, which contains a leſs quantity of oxygen, and conſequently a greater quantity of ſulphur; nitric acid, muriatic, acetic, oxalic, and ſebacic acid, &c. Next are placed the metallic calces, which are expreſſed by the generical name *oxyd*: thus is ſaid, oxyd of arſenic inſtead of calx of arſenic, oxyd of antimony, of biſmuth, of ſilver, of gold, &c.

FOURTH COLUMN.

The ſame Subſtances OXYGENATED and converted into the STATE of GAS.

In the fourth column are placed the names of the ſame ſubſtances oxygenated; that is to ſay, combined with oxygen or the baſe of vital air, acidified and tranſmuted into the ſtate of gas; there are but few of them, in proportion to the number of acids which occupy almoſt the entire extent of the third column: ſuch are the *nitrous gas*, *carbonic acid gas* or fixed air, ſulphureous gas, and fluoric gas.

We ſhould remark, that, when an acid or a metallic calx imbibes an exceſs of oxygen, the epithet *oxygenated* is added to ſignify ſuch property: thus we ſay, oxygenated muriatic acid, oxyd of arſenic or calx of arſenic; the oxygenated oxyd of arſenic takes the name of arſenic acid; molybdic, and tunſtic acids may be expreſſed after the ſame manner.

FIFTH COLUMN.

The ſame OXYGENATED SUBSTANCES, with their BASES.

In the fifth column are ranged the combinations reſulting from theſe oxygenated ſubſtances, combined with different baſes, either alkaline, earthy, or metallic; to which are given names with different terminations, but which are ſimilar for ſubſtances of the ſame ſpecies. The termination in *at* indicates the perfect and complete combination: thus ſulph*at* of potaſh, of ſoda, of lime, &c. expreſs vitriolated tartar, vitriol of ſoda, of ſelinite, &c. The termination in *ite* on the contrary, expreſſes the ſame combinations with the acids, but in a ſtate leſs oxygenated: thus nitr*ite* of potaſh ſaturated with vitriolic gas; acet*ite* of potaſh ſignifies the common foliated earth, and acet*at* of potaſh, the combination of potaſh with radical vinegar. According to this rule alſo is ſaid, arſiniat of potaſh, and of ſoda, to ſignify the arſenical acid ſaturated with theſe two baſes.

SIXTH COLUMN.

The aforeſaid SUBSTANCES combined in their original SIMPLE STATE.

In fine, the ſixth column preſents the aforeſaid ſubſtances combined in their original ſtate of ſimplicity, without being acidified; thus plumbago, or the combination of charcoal and iron, is called *carburet* of iron; the union of ſulphur with the metallic ſubſtances is called *ſulphuret*; thus ſulphuret of iron, and ſulphuret of antimony, ſignify martial pyrites, and antimony, &c. The words ſulphuret of potaſh, and ſulphuret of ſoda, ſignify the livers of ſulphur; ſulphurated hydrogen gas, means hepatic gas, &c. The ſame manner of expreſſion is uſed for the union of phoſphorus with iron, which is called *phoſphuret* of iron with copper, phoſphuret of copper; and with lead, phoſphuret of lead; in fine, phoſphorated hydrogen gas, means phoſphoric gas.

At the end is an appendix, containing the new denominations appropriated to ſeveral more compound ſubſtances, and which combine without decompoſition; ſuch are, among others *mucus* inſtead of mucilage, *gluten* inſtead of glutenous matter, *fixed* and *volatile* oil, for ſebaceous and eſſential oil, *aroma* for the aromatic ſubſtance of plants, and *alcohol* for ſpirit of wine.

It being a leading principle of the new doctrine, that water is a compound body, it will not be amiſs to notice the reflections of the Academicians reſpecting that ſubject, and the reply to them.

" The experiments in ſupport of the decompoſition and recompoſition of water are brilliant and capital; but the concluſions are deduced merely from the comparative weights of the gaſes, and of the water produced by them, and too little attention is paid to the enormous quantity of heat and light which diſengages, during the combuſtion of the two airs.

Why ſhould not the heat which is combined in two very different ſtates in vital and inflammable air, be regarded as the diſſolver of the water, which their combuſtion has produced? Does not what is known of the matter of heat, the different ſtates of fluidity, of viſible and inviſible vapour, and aeriform expanſion through which it ſucceſſively and continually makes water paſs; oblige us to admit the diſſolution and precipitation? Does not the electrical diſcharge in a thunder ſtorm ſuddenly break theſe combinations, and produce a deluge of water? this cannot be generation."

The propoſers of the new ſyſtem ſay in reply, " From theſe reflections they infer, that the water obtained by the combuſtion of inflammable gas and vital air, may in like manner be only water condenſed and precipitated, from the two caſes in which they ſuppoſe it to have been held in diſſolution.

But this concluſion is overturned, by the production of water from the two airs being weight for weight, and leaving no reſiduum. Whereas, according to the experiments of M. de Sauſſure, ſcarce an inch of water falls in a violent thunder ſtorm; and could the atmoſpherical air be deprived of all the water it contains, the quantity of water would not exceed one-fiftieth part of the atmoſphere's weight." Beſides, the formation decompoſition and recompoſition of water are convincing proofs of its generation; ſince by burning together 15 grains of inflammable and 85 of pure air, exactly 100 grains of water are obtained; and by decompoſition the ſame principles may be gained, in the ſame proportions.

The Names of the preparations of the London Pharmacopœia as they follow in the Anylyſis with their correſpondent Latin appellations according to the New Nomenclature.

OLEA.

Pharm. Londin.	Nov. Nomenclat.
Olea expreſſa	Olea fixa
—— eſſentialia	—— volatilia
Oleum animale	Oleum animale volatile

SALES.

Acidum Diſtillatum	Acidum acetoſum
—— acetoſum	—— aceticum
—— muriaticum	—— muriaticum
—— nitroſum	—— nitricum
—— vitriolicum	—— ſulphuricum
Flores Benzoes	—— benzoicum ſublimatum
Sal ſuccini purificatus	—— ſuccinicum ſublimatum
Ammonia præparata	Carbonas Ammoniacæ
Aqua Ammoniæ puræ	Ammoniaca
Kali præparatum	Carbonas potaſſæ
Aqua Kali	Potaſſa Carbonate potaſſæ
—— Kali puri	Potaſſa
Kali purum	Potaſſa fuſa
Calx cum Kali puro	—— cum Calce
Natron præparatum	Carbonas Sodæ
Aqua Ammoniæ acetatæ	Acetis ammoniacalis
Kali acetatum	—— Potaſſæ
—— tartariſatum	Tartris Potaſſæ
—— vitriolatum	Sulphas Potaſſæ

SALES.

Pharm. Londin.	Nov. Nomenclat.
Natron tartariſatum	Tartris ſodæ
——— vitriolatum	Sulphas ſodæ
——— muriaticum ſive Sal muriaticus	Murias ſodæ
Nitrum purificatum	Nitras Potaſſæ, Nitrum
Alumen	Sulphas aluminæ ſive aluminoſus
Magneſia vitriolatum	Sulphas Magneſiæ
——— alba	Carbonas magneſiæ

PRÆPARATA E SULPHURE.

Flores ſulphuris	Sulphur ſublimatum
Kali ſulphuratum	Sulphuretum alkalinum
Sulphur præcipitatum	Sulphur ſublimatum
Oleum ſulphuratum	Sulphuretum olei fixi

PRÆPARATA EX ANTIMONIO.

Antimonium	Sulphuretum antimonii
Antimonium calcinatum	Oxydum Stibii album nitro confectum
Antimonium muriatum	Murias Stibii
——— tartariſatum	Tartris potaſſæ ſtibiatus
Antimonium vitrificatum	Oxydum Stibii ſulphuratum vitreum
Crocus Antimonii	Oxydum Stibii ſulphuratum ſemivitreum
Sulphur Antimonii præcipitatum	Oxydum Stibii ſulphuratum aurantium

PRÆPARATA EX ARGENTO.

Argentum nitratum	Nitras Argenti fuſus

PRÆPARATA E FERRO.

Ferrum ammoniacale	Ferrum ammoniacale ſublimatum
Ferri Rubigo	Carbonas Ferri
Ferrum tartariſatum	Tartris acidulus Ferri
—— vitriolatum	Sulphas Ferri

PRÆPARATA EX HYDRARGYRO.

Hydrargyrus acetatus	Acetis Hydrargiri
—— calcinatus	Oxydum Hydrargiri rubrum per ignem
—— muriatus	Murias Hydrargiri corroſivus
Calomelas	—— ſublimatus
Calx Hydrargyri alba	—— Hydrargiri
Hydrargyrus muriatus mitis	—— dulcis
Hydrargyrus cum ſulphure	Oxydum Hydrargiri ſulphuratum nigrum
—— ſulphuratus ruber	Oxydum Hydrargiri ſulphuratum rubrum
—— nitratus ruber	Oxydum Hydrargyri rubrum acido nitrico confectum
—— vitriolatus	Oxydum Hydrargiri luteum acido ſulphurico confectum

PRÆPARATA E PLUMBO.

Plumbum uſtum	Oxydum Plumbi
Minium	———— rubrum
Lithargyrus	———— ſemivitreum
Ceruſſa	Oxydum Plumbi album per acidum acetoſum
Ceruſſa acetata	Acetis Plumbi
Aqua Lithargyri acetata	—— Lithargiri

PRÆPARATUM E STANNO.

Stannum pulveratum	Oxydum Stanni cinereum

PRÆPARATA E ZINCO.

Zincum calcinatum	Oxydum Zinci ſublimatum
——— vitriolatum	Sulphas Zinci

Spiritus diſtillatus	Alcohol
Tinctura Alöes	Alcohol Alöes, &c.
Æther vitriolicus	Æther ſulphuricum
—— nitroſus	—— nitricum
Mucilago	Mucus

FINIS.

A TABLE, EXHIBITING THE CHEMICAL NOMENCLATURE,

Propoſed by Meſſieurs De MORVEAU, LAVOISIER, BERTHOLLET, and De FOURCROY, in May 1787.

		I. THE SUBSTANCES NOT DECOMPOUNDED.		II. CONVERTED INTO THE STATE OF GAS BY CALORIC.		III. COMBINED WITH OXYGEN, AND PRODUCING ACIDS.		IV. OXYGENATED AND CONVERTED INTO THE STATE OF GAS.		V. OXYGENATED WITH THEIR BASES.		VI. COMBINED WITHOUT BEING ACIDIFIED.		
		NAMES NEWLY INVENTED OR ADOPTED.	ANCIENT NAMES.	NAMES NEWLY INVENTED OR ADOPTED.	ANCIENT NAMES.	NAMES NEWLY INVENTED OR ADOPTED.	ANCIENT NAMES.	NAMES NEWLY INVENTED OR ADOPTED.	ANCIENT NAMES.	NAMES NEWLY INVENTED OR ADOPTED.	ANCIENT NAMES.	NAMES NEWLY INVENTED OR ADOPTED.	ANCIENT NAMES.	
1		Light.	—	—	—	—	—	—	—	—	—	—	—	1
2		Caloric.	*Latent heat, or matter of heat.*	—	—	—	—	—	—	—	—	—	—	2
3		Oxygen.	*The baſe of vital air.*	Oxygenous gas. *N.B.* It appears that light contributes to the reduction of oxygen into a gazeous ſtate.	*Dephlogiſticated or vital air.*	—	—	—	—	—	—	—	—	3
4		Hydrogen.	*The baſe of inflammable gas.*	Hydrogenous gas.	*Inflammable gas.*	Water.	*Water.*	—	—	—	—	—	—	4
5	ACIDIFIABLE BASE.	Azot, *or* the radical principle of the nitric acid.	*The baſe of phlogiſticated air, or of atmoſpheric mephitis.*	Azotic gas.	*Phlogiſticated air, or atmoſpheric mephitis.*	The baſe of nitrous gas. Nitric acid. *With an exceſs of azot.* Nitrous acid.	*The baſe of nitrous gas.* *White nitrous acid.* *Fuming nitrous acid.*	Nitrous gas. Nitrous acid gas.	—	Nitrat of potaſh. of ſoda, &c. Nitrite of potaſh.	*Common nitre.* *Cubic nitre.*	—	—	5
6		Carbon, *or* the radical principle of the carbonic acid.	*Pure coal.*	—	—	Carbonic acid.	*Fixed air, or cretaceous acid.*	Carbonic acid gas.	*Fixed air, mephitic air.*	Carbonat { of lime. of potaſh, &c. of iron, &c.	*Chalk.* *Effervescent alkalies.* *Ruſt of iron, &c.*	Carburet of iron.	*Plumbago.*	6
7		Sulphur, *or* the radical principle of the ſulphuric acid.	—	—	—	Sulphuric acid. *With leſs oxygen.* Sulphureous acid.	*Vitriolic acid.* *Sulphureous acid.*	Sulphureous acid gas.	*Sulphureous acid gas.*	Sulphat { of potaſh. of ſoda. of lime. of aluminous earth. of barytes. of iron, &c Sulphit of potaſh, &c.	*Vitriolated tartar.* *Glauber ſalt.* *Selenite.* *Alum.* *Ponderous ſpar.* *Vitriol of iron, &c.* *Stahl's ſulphureous ſalt.*	Sulphuret { of iron. of antimony. of lead. Sulph. hydrogenous gas. Sulphuret of potaſh. Sulphuret of ſoda. Alkaline ſulphurs with metals ſuſpended in them. Alkaline ſulphuret with carbonaceous matters ſuſpended in it.	*Factitious iron pyrites.* *Antimony.* *Galena.* *Hepatic gas.* *Alkaline livers of ſulphur.* *Metallic livers of ſulphur.* *Livers of ſulphur with carbonaceous matters ſuſpended in it.*	7
8		Phoſphorus, *or* the radical principle of the phoſphoric acid.	—	—	—	Phoſphoric acid. *With a ſmaller proportion of oxygen.* Phoſphorous acid.	*Phoſphoric acid.* *Fuming, or volatile phoſphorous acid.*	—	—	Phoſphat of ſoda. Calcareous phoſphat. Superſaturated phoſphat of ſoda. Phoſphite of potaſh, &c.	*Phoſphoric ſalt with a baſe of natrum.* *Earth of bones.* *Haupt's ſal perlatum.*	Phoſphoriſed hydrogenous gas. Phoſphuret of iron.	*Phoſphoric gas.* *Syderite.*	8
9		Radical principle of the muriatic acid.	—	—	—	Muriatic acid *With an exceſs of oxygen.* Oxygenated muriatic acid.	*Marine acid.* *Dephlogiſticated marine acid.*	Muriatic acid gas. Oxygenated muriatic acid gas.	*Marine acid gas.* *Dephlogiſticated marine acid gas.*	Muriat of potaſh. Muriat of ſoda. Calcareous muriat, &c Ammoniacal muriat. Oxygenated muriat of ſoda, &c.	*Febrifuge ſalt of Sylvius.* *Marine ſalt.* *Calcareous marine ſalt.* *Sal ammoniac.*	—	—	9
10		Radical principle of the boracic acid.	—	—	—	Boracic acid.	*Sedative ſalt.*	—	—	Borat ſuperſaturated with ſoda, *or* borax. Borat of ſoda, &c. *ſoda ſaturated with the acid.*	*Common borax.*	—	—	10
11		Radical principle of the fluoric acid.	—	—	—	Fluoric acid.	*Acid of ſpar.*	Fluoric acid gas.	*Spathoſe gas.*	Fluat of lime, &c.	*Fluor ſpar.*	—	—	11
12		Radical principle of the ſuccinic acid.	—	—	—	Succinic acid.	*Volatile ſalt of amber.*	—	—	Succinat of ſoda, &c.	—	—	—	12
13		Radical principle of the acetic acid.	—	—	—	Acetous acid. *With more oxygen,* Acetic acid.	*Diſtilled vinegar.* *Radical vinegar.*	—	—	Acetit { of potaſh. of ſoda. of lime. of ammoniac of lead. of copper. Acetat of ſoda, &c.	*Terra foliata tartari.* *Mineral terra foliata.* *Calcareous acetous ſalt.* *Spirit of Mindererus.* *Saccharum ſaturni.* *Verdigris.*	—	—	13
14		Radical principle of the tartareous acid.	—	—	—	Tartareous acid.	—	—	—	Acidulous tartrite of potaſh. Tartrite of potaſh. Tartrite of ſoda, &c.	*Cream of tartar.* *Vegetable ſalt.* *Salt of Seignette.*	—	—	14
15		Radical principle of the pyro-tartareous acid.	—	—	—	Pyro-tartareous acid.	*Empyreumatic tartareous acid, or ſpirit of tartar.*	—	—	Pyro-tartrite of lime. Pyro-tartrite of iron, &c.	—	—	—	15
16		Radical principle of the oxalic acid.	—	—	—	Oxalic acid.	*Saccharine acid.*	—	—	Acidulous oxalat of potaſh. Oxalat of lime. of ſoda, &c.	*Salt of Sorrel.*	—	—	16
17		Radical principle of the gallic acid.	—	—	—	Gallic acid.	*Aſtringent principle.*	—	—	Gallat of ſoda. of magneſia. of iron, &c.	—	—	—	17
18		Radical principle of the citric acid.	—	—	—	Citric acid.	*Lemon juice.*	—	—	Citrat of potaſh. of lead, &c.	*Terra foliata with lemon juice.*	—	—	18
19		Radical principle of the malic acid.	—	—	—	Malic acid.	*Acid of apples.*	—	—	Malat of lime, &c.	—	—	—	19
20		Radical principle of the benzoic acid.	—	—	—	Benzoic acid.	*Flowers of benzoin.*	—	—	Aluminous benzoat. Benzoat of iron, &c.	—	—	—	20
21		Radical principle of the pyro-ligneous acid.	—	—	—	Pyro-ligneous acid.	*Spirit of wood.*	—	—	Pyro-lignite of lime. Pyro-lignite of zinc, &c.	—	—	—	21
22		Radical principle of the pyro-mucous acid.	—	—	—	Pyro-mucous acid.	*Spirit of honey, ſugar, &c.*	—	—	Pyro-mucite of magneſia. Ammoniacal, &c. pyro-mucite.	—	—	—	22
23		Radical principle of the camphoric acid.	—	—	—	Camphoric acid.	—	—	—	Camphorat of ſoda, &c.	—	—	—	23
24		Radical principle of the lactic acid.	—	—	—	Lactic acid.	*Acid of milk.*	—	—	Lactat of lime, &c.	—	—	—	24
25		Radical principle of the ſaccho-lactic acid.	—	—	—	Saccho-lactic acid.	*Acid of ſugar of milk.*	—	—	Sacco-lactat of iron. &c.	—	—	—	25
26		Radical principle of the formic acid.	—	—	—	Formic acid.	*Acid of ants.*	—	—	Ammoniacal, &c. formiat.	*Spirit of magnanimity.*	—	—	26
27		Radical principle of the Pruſſic acid.	—	—	—	Pruſſic acid.	*Colouring matter of Pruſſian blue.*	—	—	Pruſſiat of potaſh, &c. Pruſſiat of iron, &c.	*Phlogiſticated alkali, or Pruſſian alkali.* *Pruſſian blue.*	—	—	27
28		Radical principle of the ſebacic acid.	—	—	—	Sebacic acid.	*Acid of greaſe.*	—	—	Sebat of lime, &c.	—	—	—	28
29		Radical principle of the lithic acid.	—	—	—	Lithic acid.	*Stone in the bladder.*	—	—	Lithiat of ſoda, &c.	—	—	—	29
30		Radical principle of the bombic acid.	—	—	—	Bombic acid.	*Acid of the ſilk-worm.*	—	—	Bombiat of iron, &c.	—	—	—	30
								OXYDS WITH VARIOUS BASES *.						
31	METALLIC	Arſenic.	*Regulus of arſenic.*	—	—	Oxyd of arſenic.	*White arſenic, or calx of arſenic.*	Yellow { ſulphurated oxyd of Red { arſenic. Arſenical oxyd of potaſh.	*Orpiment.* *Realgar.* *Liver of arſenic*	Arſeniat of potaſh, &c. Arſeniat of copper.	*Macquer's arſenical neutral ſalt.*	Alloy of arſenic and tin.	*Arſenicated tin.*	31
32		Molybdena.	—	—	—	Oxyd of molybdena. Molybdic acid.	*Calx of molybdena.*	Sulphur of molybdena.	*Molybdena.*	Molybdat.	—	Alloy, &c.	—	32
33		Tungſten.	—	—	—	Oxyd of tungſten. Tunſtic acid.	*Yellow calx of tungſten.*	—	—	Calcareous tunſtat.	*Swediſh tungſten.*	Alloy, &c.	—	33
34		Manganeſe.	*Regulus of manganeſe.*	—	—	White } oxyd of Black } maganeſe. Vitreous }	*Manganeſe.*	—	—	—	—	Alloy of manganeſe, and iron.	—	34
35		Nickel.	—	—	—	Oxyd of nickel	*Calx of nickel.*	—	—	—	—	Alloy of nickel, &c.	—	35
36		Cobalt.	*Regulus of cobalt.*	—	—	Grey } oxyd of Vitreous } cobalt.	*Calx of cobalt.*	Alkaline cobaltic oxyds.	*Precipitates of cobalt again diſſolved by alkalies.*	—	—	Alloy, &c.	—	36
37		Biſmuth.	—	—	—	White } oxyd of Yellow } biſmuth. Vitreous }	*Magiſtery of biſmuth, or white paint.* *Yellow calx of biſmuth.* *Glaſs of biſmuth.*	Sulphurated oxyd of biſmuth.	*Biſmuth precipitated by liver of ſulphur.*	—	—	Alloy, &c.	—	37
38		Antimony.	*Regulus of antimony.*	—	—	Oxyd of antimony { by the nitrous acid, by the muriatic acid. ſublimated. vitreous.	*Diaphoretic antimony.* *Powder of Algarotti.* *Flowers or ſnow of antimony.* *Glaſs of regulus of antimony.*	Grey } ſulphurated Red } oxyd of Orange } antimony. Vitreous } Alkaline oxyd of antimony.	*Grey calx of antimony.* *Kermes mineral.* *Golden ſulphur.* *Glaſs and liver of antimony.* *Rotrou's ſolvent.*	—	—	Alloy, &c.	—	38
39		Zinc.	—	—	—	Oxyd of zinc. Sublimated oxyd of zinc.	*Calx of zinc.* *Flowers of zinc, pompholix, &c.*	Sulphurated oxyd of zinc.	*Precipitate of zinc by liver of ſulphur, or factitious blend.*	—	—	Alloy, &c.	—	39
40		Iron.	—	—	—	Black } oxyd of iron. Red }	*Martial æthiops.* *Aſtringent ſaffron of Mars.*	Sulphurated oxyd of iron.	—	—	—	Alloy, &c.	—	40
41		Tin.	—	—	—	White oxyd of tin.	*Calx or putty of tin.*	Yellow ſulphurated oxyd of tin.	*Aurum muſivum.*	—	—	Alloy, &c.	—	41
42		Lead.	—	—	—	White } oxyd of Yellow } lead. Red } Vitreous }	*Ceruſe, or white lead.* *Maſſicot.* *Minium.* *Litharge.*	Sulphurated oxyd of lead.	—	—	—	Alloy, &c.	—	42
43		Copper.	—	—	—	Red } Green } oxyd of copper. Blue }	*Brown calx of copper.* *Green calx of copper, or verdigris.* *Mountain blue.*	Ammoniacal oxyd of copper.	—	—	—	Alloy, &c.	—	43
44		Mercury.	—	—	—	Blackiſh } mercurial Yellow } oxyd. Red }	*Æthiops* per ſe *Turbith mineral.* *Precipitate* per ſe.	Black { ſulphurated oxyd of Red { mercury.	*Æthiops mineral.* *Cinnabar.*	—	—	Alloy *or* amalgam of, &c.	—	44
45		Silver.	—	—	—	Oxyd of ſilver.	*Calx of ſilver.*	Sulphurated oxyd of ſilver	—	—	—	Alloy, &c.	—	45
46		Platina.	—	—	—	Oxyd of platina.	*Calx of platina.*	—	—	—	—	Alloy of platina and gold.	—	46
47		Gold.	—	—	—	Oxyd of gold.	*Calx of gold.*	—	—	—	—	Alloy, &c.	—	47
48	EARTHS.	Siliceous earth.	*Vitrifiable earth, quartz, &c.*	—	—	—	—	—	—	—	—	—	—	48
49		Aluminous earth.	*Clay, or earth of allum.*	—	—	—	—	—	—	—	—	—	—	49
50		Barytes.	*Terra ponderoſa.*	—	—	—	—	—	—	—	—	—	—	50
51		Lime.	*Calcareous earth.*	—	—	—	—	—	—	—	—	—	—	51
52		Magneſia.	—	—	—	—	—	—	—	—	—	—	—	52
53	ALKALIES.	Potaſh.	*Vegetable fixed alkali of tartar, &c.*	—	—	—	—	—	—	—	—	—	—	53
54		Soda.	*Mineral alkali, marine alkali natrum.*	—	—	—	—	—	—	—	—	—	—	54
55		Ammoniac.	*Fluor, or cauſtic volatile alkali*	Ammoniacal gas.	*Alkaline gas.*	—	—	—	—	—	—	—	—	55

* As the ſubſtances in the lower part of this column cannot be reduced into a gazeous ſtate, and not only they, but ſeveral of thoſe in the upper parts; we have therefore changed at this place the title of the column, and ſubſtituted another, which expreſſes the peculiar combinations of the metals.

NAMES given to compound Subſtances which combine without Decompoſition.

	1	2	3	4	5	6	7	8	9	10		11		12	13	14	15	16	17
New Names.	Mucous matter.	Glutinous matter, *or* gluten.	Sugar.	Starch.	Fixed Oil	Volatile oil.	The aroma, *or* aromatous principle.	Reſin.	Extractive matter.	Extracto-reſinous matter	{ in which the extractive matter predominates	Reſinous-extractive matter	{ in which the reſin predominates.	Feculum.	Alcohol or ſpirit of wine.	Alcohol { of potaſh. of guaiacum. of ſcammoneum. of myrrh, &c.	Nitrous } Gallic } alcohol. Muriatic }	Sulphuric } Muriatic } ether. Acetic, &c. }	Alkaline } earthy } ſoaps. Acid } Metallic } Saponul of turpentine, &c.
Ancient names.	*Mucilage.*	*Glutinous matter.*	*Saccharine matter.*	*Amylaceous matter.*	*Fat oil.*	*Eſſential oil.*	*Spiritus rector.*	*Reſin.*	*Extractive matter.*					*Feculum.*	*Spirit of wine.*	*Alkaline tincture.* *Tincture of guiacum.* —— *ſcammonium.* —— *myrrh, &c.*	*Dulcified ſpirit of wine.* *Tincture of nut-galls* *Dulcified marine acid.*	*Ether of Frobenius.* *Marine ether.* *Acetous ether, &c.*	*Alkaline, earthy, &c. ſoaps.* *Combinations of volatile oils with baſes.*